NEWS RELEASE

TFF Pharmaceuticals Partners with Emory University and BARDA to Develop a Dry Powder Inhaled mRNA-based Treatment for Influenza and COVID

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Partnership funded by BARDA and other US government agencies

TFF formulation may provide flexibility of delivery and improve storage and distribution conditions

FORT WORTH, Texas, Sept. 11, 2024 (GLOBE NEWSWIRE) -- TFF Pharmaceuticals, Inc (Nasdaq: TFFP) (the "Company" or "TFF Pharmaceuticals"), a clinical-stage biopharmaceutical company focused on developing and commercializing innovative drug products based on its patented Thin Film Freezing (TFF) technology platform, today announces its new partnership with Emory University and the Biomedical Advanced Research and Development Authority (BARDA). Under the partnership, TFF Pharmaceuticals will test the feasibility of converting Emory's mRNA-based Cas13a antiviral against influenza A and B and SARS-CoV-2 into a dry powder formulation for more precise inhalational delivery, improved stability and widespread distribution without the need for cold-chain storage.

The competitively awarded Easy Broad Agency Announcement (EZ-BAA) contract supports early-stage therapeutic platform development under BARDA's Flexible and Strategic Therapeutics (FASTx) program. The FASTx program is designed to transform antiviral therapy by developing rapidly adaptable platforms to combat viral threats through the use of next generation technology such as clustered regular interspaced short palindromic repeat-associated proteins (CRISPR-Cas), which can be rapidly manufactured in response to emerging viral threats.

"Viruses pose a significant public health challenge through their ability to evolve rapidly, which renders traditional antiviral therapies ineffective and risks widespread outbreaks in case of emerging strains. Our partnership with Emory University and BARDA is an important opportunity to deploy our TFF technology to combat rapidly changing

respiratory viruses, including influenza and COVID," said Dr. Harlan Weisman, TFF Pharmaceuticals' Chief Executive Officer. "Inhalational delivery of antiviral therapy against respiratory viruses is poised to drive efficacy by providing the drug where the virus replicates while improved stability and room temperature storage enhance practicality for widespread distribution."

"TFFs novel dry powder formulation provides an important new approach to address the unmet need for precise delivery of novel therapeutics against potentially deadly respiratory viral infections. With ever-changing influenza and COVID strains emerging, flexibility of delivery without the need for cold chain storage and distribution is all the more important. We look forward to working closely with the TFF team to develop new approaches to treat these conditions faster and more efficiently," said Philip J. Santangelo, Professor in the Wallace H. Coulter Department of Biomedical Engineering at Georgia Tech School of Engineering and Emory University School of Medicine.

This work is supported with federal funds from BARDA, part of the Administration for Strategic Preparedness and Response (ASPR) within the U.S. Department of Health and Human Services (HHS).

ABOUT TFF PHARMACEUTICALS' THIN FILM FREEZING (TFF) TECHNOLOGY

TFF Pharmaceuticals' proprietary Thin Film Freezing (TFF) technology allows for the transformation of both existing compounds and new chemical entities into dry powder formulations exhibiting unique characteristics and benefits. The TFF process is a particle engineering process designed to generate dry powder particles with advantageous properties for inhalation, as well as parenteral, nasal, oral, topical and ocular routes of administration. The process can be used to engineer powders for direct delivery to the site of need, circumventing challenges of systemic administration and leading to improved bioavailability, faster onset of action, and improved safety and efficacy. The ability to deliver therapies directly to the target organ, such as the lung, allows TFF powders to be administered at lower doses compared to oral drugs, reducing unwanted toxicities and side effects. Laboratory data suggest the aerodynamic properties of the powders created by TFF can deliver as much as 75% of the dose to the deep lung. TFF does not introduce heat, shear stress, or other forces that can damage more complex therapeutic components, such as fragile biologics, and instead enables the reformulation of these materials into easily stored and temperature-stable dry powders, making therapeutics and vaccines more accessible for distribution worldwide. The advantages of TFF can be used to enhance traditional delivery or combined to enable next-generation pharmaceutical products.

ABOUT TFF PHARMACEUTICALS

TFF Pharmaceuticals, Inc. is a clinical-stage biopharmaceutical company engaging patented rapid freezing technology to develop and transform medicines into potent dry powder formulations for better efficacy, safety, and stability. The company's versatile TFF technology platform has broad applicability to convert most any drug, including vaccines, small and large molecules, and biologics, into an elegant dry powder highly advantageous for

inhalation, or for topical delivery to the eyes, nose and the skin.

SAFE HARBOR

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements in this press release include, but are not limited to, statements by the Company relating to the potential development of a novel, innovative approach for treating respiratory viruses, including influenza and COVID, using its TFF technology. Forward-looking statements involve known and unknown risks, uncertainties and other factors that could cause actual results to differ materially, including (i) the risk that the Company's partnership with Emory University and BARDA may not lead to a successful treatment of respiratory viruses, such as influenza and COVID, (ii) the risk that the Company may not be able to obtain additional working capital with which to continue its current operations and clinical trials as and when needed, (iii) success in early phases of pre-clinical and clinical trials do not ensure later clinical trials will be successful; (iv) no drug product incorporating the TFF platform has received FDA pre-market approval or otherwise been incorporated into a commercial drug product, (v) the Company has no current agreements or understandings with any large pharmaceutical companies for the development of a drug product incorporating the TFF Platform, and (vi) those other risks disclosed in the section "Risk Factors" included in the Company's Quarterly Report on Form 10-Q filed with the SEC on August 14, 2024. The Company cautions readers not to place undue reliance on any forward-looking statements. The Company does not undertake and specifically disclaims any obligation to update or revise such statements to reflect new circumstances or unanticipated events as they occur, except as required by law.

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